

# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL SEARCHING AUTHORITY

To:

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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) - 9 DEC 2004

Applicant's or agent's file reference  
20401577JW

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
**PCT/SG2004/000319**

International filing date (day/month/year)  
30 September 2004

Priority date (day/month/year)  
7 November 2003

International Patent Classification (IPC) or both national classification and IPC

Int. Cl. <sup>7</sup> A61M 29/00, A61F 2/06, A61B 17/12

Applicant

MERLIN MD PTE LTD (ET AL.)

1: This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
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International application No.

**PCT/SG2004/000319**

**Box No. V. Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 9-24, 31-39	<b>YES</b>
	Claims 1-8, 25-30	<b>NO</b>
Inventive step (IS)	Claims	<b>YES</b>
	Claims 1-39	<b>NO</b>
Industrial applicability (IA)	Claims 1-39	<b>YES</b>
	Claims	<b>NO</b>

**2. Citations and explanations:**

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1 US 2003/0093111 A1

D2 WO 1998014137 A1

D3 EP 0947204 A2

D4 US 6024765 A

D5 EP 754435 A1

D6 EP 1391184 A1

The present claims define an implantable medical device for insertion into a passage and a wire structure made from a platinum alloy, wherein the device or wire are made from a platinum alloy selected from the group consisting of platinum:iridium alloy, platinum:tungsten alloy, platinum:ruthenium alloy, platinum:rhodium alloy and platinum:nickel alloy.

**NOVELTY AND INVENTIVE STEP: Claims 1-39**

D1 discloses a vaso-occlusive device of metallic wire and methods of this device to treat patients by implanting such devices at the site of abnormal blood flow; the metallic wire can comprise a metal selected from the group consisting of platinum, tungsten, rhenium, rhodium, ruthenium, nickel and alloys thereof {Abstract, Fig.1A -3B, paragraph [0003] – paragraph [0044]}, which is an implantable medical device for insertion into a passage, Claims 1-6, are not new and do not involve inventive step in view of this document. Claims 7-24, 31-39 do not involve inventive step in view of this documents as all their technical features are common general knowledge of the art.

D2 discloses a radially expandable stent which is formed of fine wire (10), the wire comprises an alloy selected from the group consisting of Pt-Ir with 90 wt % Pt and 10 wt % Ir {entire document}, which is an implantable medical device for insertion into a passage, wherein the device is made from a platinum alloy selected from the group consisting of platinum:iridium alloy, where the alloy exhibit a tensile strength of about 155,000 to 175,000 PSI and comprises about 90 wt % of Pt and 10 wt % Ir. Claims 1-8, 25-30 are not new and do not involve inventive step in view of this document. Claims 9-24, 31-39 do not involve inventive step in view of this documents as all their technical features are common general knowledge of the art.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V

D3 discloses an endoprosthesis. In preferred embodiment the body structure includes an elongated central cylindrical core and an elongated outer tubular member disposed around the core. One of the first and second materials comprises the core and the other comprises the tubular member. The first material is preferably selected from the group consisting of platinum, iridium, tungsten alloys thereof and any combination thereof {Abstract, Fig. 1-3, paragraph [0008] – paragraph [0012]}. Claims 1-6, 25-30 are not new and do not involve inventive step in view of this document. Claims 7-24, 31-39 do not involve inventive step in view of this documents as all their technical features are common general knowledge of the art.

D4 discloses an implantable vaso-occlusive coil which is implanted using minimally invasive surgical techniques. The material used in constructing a vaso-occlusive member may be any of a wide variety of materials: alloys of metals of Platinum Group, especially platinum, rhodium {entire document}. Claims 1-6, 25-30 are not new and do not involve inventive step in view of this document. Claims 7-24, 31-39 do not involve inventive step in view if this document as all technical features of these claims are common general knowledge of the art.

D5 discloses a vaso-occlusive device with helically wound coil made of Pt, Rh, W or their alloys {entire document}. Claims 1-6, 25-30 are not new and do not involve inventive step in view of this document. Claims 7-24, 31-39 do not involve inventive step in view if this document as all technical features of these claims are common general knowledge of the art.

D6 discloses an expandable multi-layer tubular sructuture useful as a surgical stent which has two or more layers. The different layers can be made from Pt-Ir alloy {entire document}. Claims 1-6, 25-30 are not new and do not involve inventive step in view of this document. Claims 7-24, 31-39 do not involve inventive step in view if this document as all technical features of these claims are common general knowledge of the art.